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ABSTRACT

The Significant Bilingual Instructional Features (SBIF) descriptive study identified, described, and verified important features of bilingual education for instuction of limited English proficient students. Part I involved the study of 58 classrooms and 232 students, grade K-12, at six diverse sites representing a variety of ethnolinguistic (Mexican, Puerto Rican, Cuban, Cantonese, and Navajo) and multilinguistic groups. The classrooms were nominated for their success as settings for bilingual instruction. A variety of qualitative and quantitative procedures were used to collect data on instructional organization, time allocation, teacher characteristics, classroom language use, students' academic learning time, and student participation styles. The investigation indicated that the nominated classrooms were characterized by (1) congruence of instructional intent, (2) use of active teaching behaviors, (3) use of the students' native language and English for instruction, (4) integration of English language development with basic skills development, and (5) use of information from the students' home culture. (MSE)

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SIGNIFICANT BILINGUAL INSTRUCTIONAL FEATURES STUDY

AN EMERGING DESCRIPTION OF SUCCESSFUL BILINGUAL INSTRUCTION: EXECUTIVE SUMMARY OF PART I OF THE SBIF STUDY

by

William J. Tikunoff

Document SBIF-81-R.7
1983

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ABSTRACT

The Significant Bilingual Instructional Features (SBIF) descriptive study was designed to identify, describe, and verify important features of bilingual education for instruction of limited English proficient (LEP) students. This document summarizes the findings from Part I of the study.

Part I of this two-part study involved 58 classrooms and 232 target students (grades K-12) at six diverse sites. Each of five sites represented a different ethnolinguistic group (Mexican, Puerto Rican, Cuban, Cantonese, and Navajo); the sixth site was multilingual. The Part I classrooms were selected through a process of nomination by school administrators, bilingual teachers, parents, and students at each site. The purpose of the nomination process was to identify classes that were perceived to be successful settings for bilingual instruction.

Data collection included a variety of qualitative and quantitative procedures resulting in information on the organization of instruction, allocation of time, characteristics of teachers, language use, students' academic learning time, and student participation styles.

Instruction in the nominated classrooms was found to exhibit five significant features: (a) congruence of instructional intent, organization of instruction, and student consequences; (b) use of active teaching behaviors; (c) use of the students' native language (L1) and English (L2) for instruction; (d) integration of English language development with basic skills instruction; and (e) use of information from the LEP students' home culture.

PREFACE

In October of 1980, the National Institute of Education (NIE) provided funding for the Far West Laboratory for Educational Research and Development (FWLERD) to form, in conjunction with eight other nationally prominent educational institutions and agencies, a consortium for the descriptive study of Significant Bilingual Instructional Features (SBIF). This is a three-year, multifaceted study of significant bilingual instructional practices and elements in bilingual instructional settings, and as such, it is part of the proposed work scope of the Part C Coordinating Committee on Bilingual Education Research (U.S. Department of Education). The intent is to provide important information that will increase understanding of bilingual instruction, and subsequently increase opportunities for students with limited or no proficiency in English to participate fully and successfully in the educational process.

The study was designed in two parts. Part I identified and described those features of bilingual instruction considered to be significant in terms of their consequences for limited English proficient (LEP) students. In Part II, these findings were verified in four major studies.

Part I of the study took place during the 1980-81 school year, and Part II occurred in 1981-82. Data analysis for Part I was accomplished by October of 1981. Part II data are undergoing analysis, and reporting will be completed by September of 1983, at which time the project terminates.

The SBIF descriptive study is one of several research activities guided by the Part C Research Agenda for Bilingual Education, in direct response to a Congressional mandate issued in 1978. In search of data to inform its consideration for renewal of support for bilingual education, Congress directed the Secretary of Education to "develop a national research program for bilingual education." In turn, the directors of the Office of Bilingual Education and Minority Language Affairs (OBEMLA) and the National Institute of Education (NIE) were instructed to coordinate a program of research to respond to Congress' questions.

Results from this study, along with those from other specially commissioned studies, are expected to provide Congress with information regarding instructional features that provide successful access to learning for LEP students, as well as the long-range consequences of these features. Furthermore, along with results from other studies conducted under the aegis of the Part C Research Agenda, findings from the SBIF study are expected to inform practice, thus resulting in their inclusion in instructional programs for LEP students.

Consortium Formed to Conduct the Study

The study was conducted by a consortium of nine educational institutions and agencies, collaborating with school districts that serve ethnolinguistically diverse student populations. Consortium members, participating school districts, and targeted ethnolinguistic populations included in both parts of the study were:

- ARC Associates, Inc., in collaboration with the Oakland and San Francisco school districts, California, focusing on students whose home language is one of the Chinese languages--Sau-Lim Tsang, principal investigator.

- Far West Laboratory for Educational Research and Development, in collaboration with the San Francisco Unified School District, California, focusing on multilingual classrooms with students representing many home languages--Joaquin Armendariz, principal investigator.

- Florida State University, in collaboration with the Dade County Public Schools in Miami, Florida, focusing on Cuban and Cuban-American students whose home language is Spanish--Roger Kaufman, principal investigator.

- Hunter College of the City University of New York, in collaboration with Community School District 4, New York City, focusing on Puerto Rican students whose home language is Spanish--Jose A. Vazquez-Faria, principal investigator.

- Navajo Nation Division of Education in collaboration with schools serving the Navajo Nation in northeastern Arizona--Gail Goodman, principal investigator.

- Southwest Educational Development Laboratory, in collaboration with El Paso Public Schools, El Paso, Texas, focusing on Mexican and Mexican-American students whose home language is Spanish--Domingo Dominguez, principal investigator.

Consortium members and school districts participating in Part II only of the study were:

- CEMREL, Inc., in collaboration with the Chicago Public Schools, Illinois, focusing on classrooms in which the home language of many students is Spanish--Harriet Doss-Willis, principal investigator.

- Northwest Regional Education Laboratory, in collaboration with the Salem, Oregon, public schools, focusing on students whose home language is either Vietnamese or Spanish--Alfredo Aragon, principal investigator.

- University of Hawaii, in collaboration with the Hawaii Department of Education, focusing on Filipino students whose home language is Ilokano--Morris Lai, principal investigator.

Table i lists the documents and reports that emerged from Part I of the study.

William Tikunoff
Principal Investigator

Table i

Research Documents and Reports for SBIF Study: Part I

Document/Report Number	Title
SBIF-80-D.1	Description of the Study
SBIF-80-D.2	Research Design: Part I of the SBIF Study
SBIF-80-D.1.1	Overview of the SBIF Study
SBIF-81-D.1.1	Review of the Literature for a Descriptive Study of Significant Bilingual Instructional Features
SBIF-81-D.3	Sample Description and Data Gathering Schedules: Part I of the SBIF Study
SBIF-81-R.4	Preliminary Analysis of Part I of the SBIF Study
SBIF-81-D.6	Criteria to Select Instructional Features and Consequences for Limited English Language Proficient Students for Part II of the SBIF Study
SBIF-81-D.7	Research Design: Part II of the SBIF Study
SBIF-81-D.7.1	Accommodation of the Seminar of Scholars' Recommendations for the Part II Research Design
SBIF-81-R.7	Executive Summary of Part I of the SBIF Study
SBIF-81-R.6-I	Volume I: Introduction and Overview of Part I of the Study
SBIF-81-R.5/ R.6-II	Volume II: Success Indicators and Consequences for Limited English Language Proficient Students in the SBIF Study
SBIF-81-R.2/ R.6-III.1	Volume III.1: Bilingual Instructional Perspectives: Organization of Bilingual Instruction in the Classrooms of the SBIF Study

Table i (continued)

Research Documents and Reports for SBIF Study: Part I

Document/Report Number	Title
SBIF-81-R.3/ R.6-III.2	Volume III.2: Bilingual Instructional Perspectives: Allocation of Time in the Classrooms of the SBIF Study
SBIF-81-R.6-IV	Volume IV: Teaching in Successful Bilingual Instructional Settings
SBIF-81-R.6-V	Volume V: Consequences for Students in Successful Bilingual Instructional Settings
SBIF-81- R.6-I-A.1	Appendix A.1: Macro-level Context Report: Site 01
SBIF-81- R.6-I-A.2	Appendix A.2: Macro-level Context Report: Site 02
SBIF-81- R.6-I-A.3	Appendix A.3: Macro-level Context Report: Site 03
SBIF-81- R.6-I-A.4	Appendix A.4: Macro-level Context Report: Site 04
SBIF-81- R.6-I-A.5	Appendix A.5: Macro-level Context Report: Site 05
SBIF-81- R.6-I-A.6	Appendix A.6: Macro-level Context Report: Site 06
SBIF-81-R.5/ R.6-VI-B.1	Appendix B.1: An Ecological Case Study of Bilingual Instruction (English/Spanish) in Kindergarten: Site 01
SBIF-81-R.5/ R.6-VI-B.2	Appendix B.2: An Ecological Case Study of Bilingual Instruction (English/Spanish) in Combined Grades 1 & 2: Site 01
SBIF-81-R.5/ R.6-VI-B.3	Appendix B.3: An Ecological Case Study of Bilingual Instruction (English/Spanish) in Combined Grades 2 & 3: Site 02
SBIF-81-R.5/ R.6-VI-B.4	Appendix B.4: An Ecological Case Study of Bilingual Instruction (English/Spanish) Grade 2: Site 03

Table i (continued)

Research Documents and Reports for SBIF Study: Part I

Document/Report Number	Title
SBIF-81-R.5/ R.6-VI-B.5	Appendix B.5: An Ecological Case Study of Bilingual Instruction (English/Navajo) in Grade 1: Site 04
SBIF-81-R.5/ R.6-VI-B.6	Appendix B.6: An Ecological Case Study of Bilingual Instruction (English/ Cantonese) in Grade 5: Site 05
SBIF-81-R.5/ R.6-VI-B.7	Appendix B.7: An Ecological Case Study of Bilingual Instruction (English/ Cantonese) in Grade 5: Site 05
SBIF-81-R.5/ R.6-VI-B.8	Appendix B.8: An Ecological Case Study of Bilingual Instruction (English/Spanish) in Grade 1: Site 06
SBIF-81-R.5/ R.6-VI-B.9	Appendix B.9: An Ecological Case Study of Bilingual Instruction (English/Spanish) in Combined Grades 3, 4, & 5: Site 06
SBIF-81-R.6-C	Training Manual for Data Collection: SBIF Study
SBIF-81-R.8	State-of-the-Project Report: SBIF Study

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The National Consortium for the Significant Bilingual Instructional Features Study would like to acknowledge the contributions of the thousands of students and hundreds of classroom teachers who participated in the study. The dedication of the staffs at the nine consortium sites, and the sustained cooperation of district administrators and school principals were critical to the achievement of study goals. Approximately 100 data collectors representing five different language groups were involved in the fieldwork. The study was thoughtfully advised on research and policy issues by a Seminar of Scholars and a Policy Implications Advisory Panel. The talent, energy, and perseverance of all of these contributors is deeply appreciated.

During the analysis and reporting phases of the study there was substantive and editorial input from a wide range of people. The Consortium is especially grateful for the many contributions of the site project directors: Migdalia Romero and Ana Maria Villegas (New York); Maria Masud and Alicia Rojas (Florida); Ana Macias (Texas); Gail Goodman (Arizona); Larry F. Guthrie, John Lum, and Kalei Inn (Oakland, California); Joaquin Armendariz and Christine Baker (San Francisco, California); Astacia Wright (Illinois); Felipe Paris (Oregon); and Milagros Gavieres (Hawaii). The Consortium also acknowledges the special contributions of Elsie Gee for her organizational ability, high energy, constructive criticism, and perseverance in the planning, conduct, and management of the study, Carolyn Arnold, Mark Phillips, and Christine Baker for data analysis, Becky McReynolds for a broad range of editorial work, and Raquel Castillo, Patricia Ferman, and Peter Grace for coordination of document production.

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AN EMERGING DESCRIPTION OF SUCCESSFUL BILINGUAL INSTRUCTION

Executive Summary of Part I of the SBIF Descriptive Study

Children who enter school with limited English language proficiency are at a decided disadvantage when English is the only medium of instruction. On one hand, they must become proficient in English in order to accomplish classroom tasks. On the other hand, they are expected to progress academically at a rate normal for children of their age. A major controversy in bilingual education has centered upon how to accomplish both of these objectives concurrently.

This dilemma was underscored in 1968 when the Bilingual Education Act, added as Title VII to the Elementary and Secondary Education Act of 1965, stated the federal educational goal for such students. That goal required that students develop English language proficiency, but not at the expense of other academic skills. That stance was reinforced in 1974 when the Supreme Court handed down its decision on Lau vs. Nichols. Citing Title VI of the 1964 Civil Rights Act, the court ruled that English-only educational programs failed to provide equal educational opportunity for limited English proficient students, thus requiring schools to offer special English language training for those students.

The Significant Bilingual Instructional Features (SBIF) descriptive study was designed to identify and describe important characteristics of bilingual instruction and their consequences for limited English proficient (LEP) students. The study was mandated by Congress to aid in its consideration of continued funding for bilingual education programs. The SBIF study is one of several research activities of the U.S. Department of Education's Part C Research Agenda for Bilingual Education.

This report describes the results and implications of Part I of the three-year SBIF descriptive study. These findings are being examined in a variety of different settings during Part II of the study.

In order to learn how bilingual teachers improve both students' English proficiency and their academic skills, the SBIF researchers studied bilingual instruction in widely disparate sites around the country. Part I of the study involved 58 teachers, 232 target students (grades K-12), and six nationally representative sites. Each of five sites represented a different ethnolinguistic group (Mexican, Puerto Rican, Cuban, Chinese, and Navajo); the sixth site was multilingual.

A key feature of the SBIF study is that it examined instruction in a sample of nominated bilingual instructional settings rather than in a sample of classes selected to be representative of bilingual

programs in general. This approach was chosen because it was believed that significant features of bilingual instruction would be most evident in the classes of teachers nominated as the most successful bilingual instructors. The SBIF descriptive study further offers a rare emphasis on instructional treatments within bilingual education; prior studies of instruction for LEP students have been criticized for neglecting to adequately describe the instructional processes experienced by LEP students (Tikunoff, Ward, Fisher, Armendariz, Parker, Dominguez, Vazquez-Faria, Mercado, Romero, & Good, SBIF-81-D.1.1).

Part I data collection used a variety of observational strategies that resulted in measures of instructional organization, time allocation to content areas and languages, language use, and student engagement and accuracy in instructional tasks as well as qualitative descriptions of instruction and student participation. Analyses of these data sets separately and in combination have provided an emerging description of bilingual instruction.

The instruction by the nominated Part I teachers exhibited five significant features. These were:

1. Congruence of instructional intent, organization and delivery of instruction, and student consequences;

2. Use of active teaching behaviors;

3. Use of the students' native language (L1) and English (L2) for instruction;

4. Integration of English language development with basic skills instruction; and

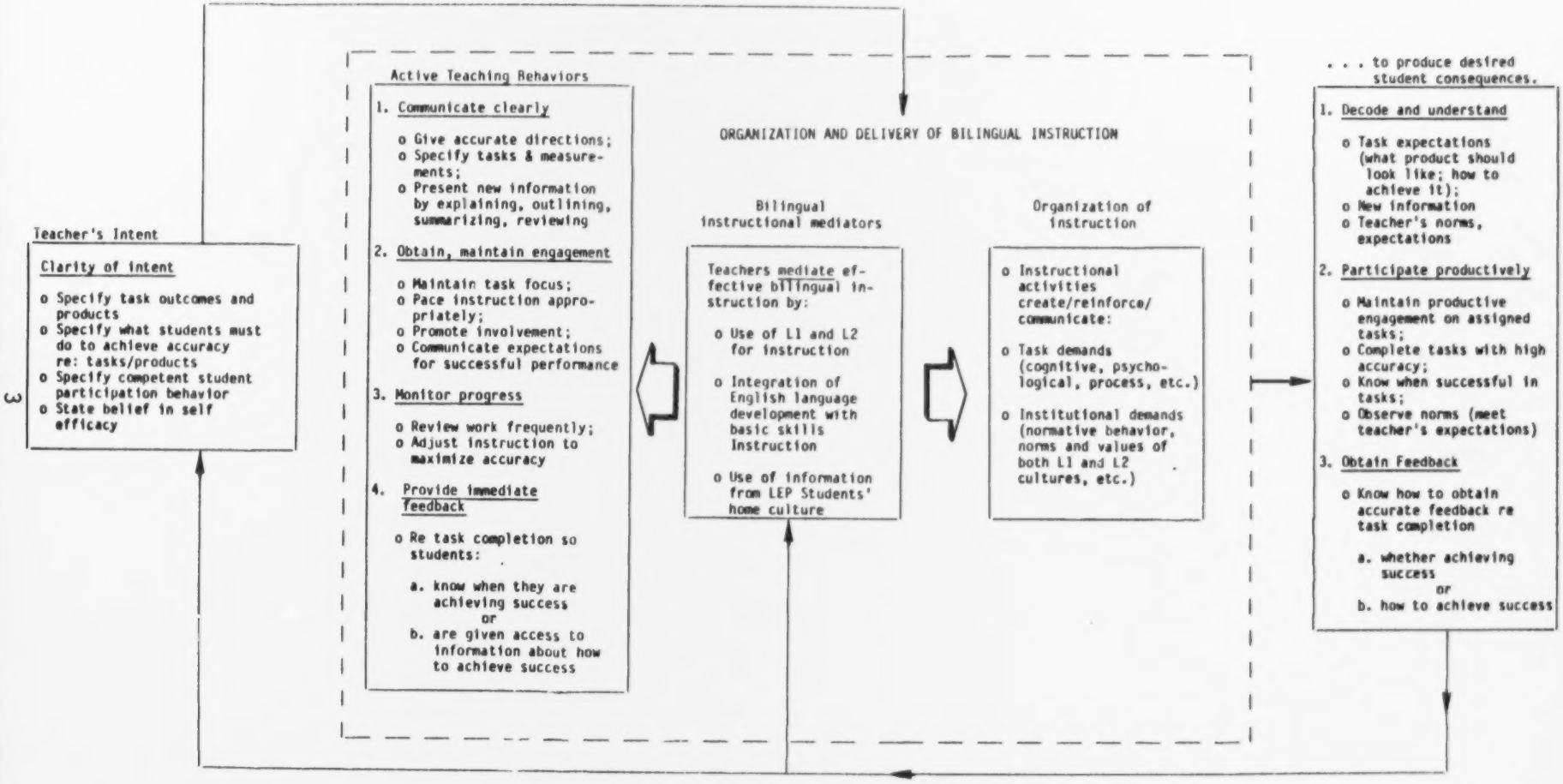
5. Use of information from the LEP students' home culture.

The framework for this description of bilingual instruction is contained in Figure 1.

The nominated teachers provided instruction in all subject areas using both English and the students' native language and culture. These teachers' students were able to both acquire English language proficiency and progress in academic skills. The sampled students were able over time to participate in English-only instruction after having received bilingual instruction.

The five features outlined above will be discussed in greater detail in the following sections.

Figure 1. A framework for bilingual instruction.


Teacher's Intent
Clarity of intent
o Specify task outcomes and products
o Specify what students must do to achieve accuracy re: tasks/products
o Specify competent student participation behavior
o State belief in self efficacy
Active Teaching Behaviors
1. Communicate clearly
o Give accurate directions;
o Specify tasks & measurements;
o Present new information by explaining, outlining, summarizing, reviewing
2. Obtain, maintain engagement
o Maintain task focus;
o Pace instruction appropriately;
o Promote involvement;
o Communicate expectations for successful performance
3. Monitor progress
o Review work frequently;
o Adjust instruction to maximize accuracy
4. Provide immediate feedback
o Re task completion so students:
a. know when they are achieving success
or
b. are given access to information about how to achieve success
ORGANIZATION AND DELIVERY OF BILINGUAL INSTRUCTION
Bilingual instructional mediators
Teachers mediate effective bilingual instruction by:
o Use of L1 and L2 for instruction
o Integration of English language development with basic skills instruction
o Use of information from LEP Students' home culture
Organization of instruction
o Instructional activities create/reinforce/communicate:
o Task demands (cognitive, psychological, process, etc.)
o Institutional demands (normative behavior, norms and values of both L1 and L2 cultures, etc.)
. . . to produce desired student consequences.
1. Decode and understand
o Task expectations (what product should look like; how to achieve it);
o New information
o Teacher's norms, expectations
2. Participate productively
o Maintain productive engagement on assigned tasks;
o Complete tasks with high accuracy;
o Know when successful in tasks;
o Observe norms (meet teacher's expectations)
3. Obtain Feedback
o Know how to obtain accurate feedback re task completion
a. whether achieving success
or
b. how to achieve success

Congruence of Instructional Intent, Organization and Delivery of Instruction, and Student Consequences

Competent Student Participation

Teachers create task and institutional demands in the ways they organize classroom instruction. Students must respond to those demands if they are to be considered by their teachers to be performing competently (Bossert, 1979). It is the match or mismatch of student performance with teacher intent that determines competent participation (Tikunoff, 1982). Thus, in describing effective instruction, it is difficult to separate student consequences from elements of instruction.

Research on instruction typically has identified teaching behavior that relates to student outcomes as measured on tests of academic achievement in reading and mathematics in the elementary grades. Most recently, outcome measures have been extended to include increased on-task behavior, or engagement, of students. Academic Learning Time (Fisher, Filby, Marliave, Cahen, Dishaw, Moore & Berliner, 1978) for example has been recognized as a measure of student performance that correlates positively with achievement. The design of the SBIF descriptive study used these characteristics of effective instruction, but added the dimension of "competent student participation" (Ward, 1982).

The extent to which the target students displayed competent participation in instructional tasks is revealed in the nine ecological case studies developed for the SBIF descriptive study (see Baker & Boothroyd, 1981a, b; Goodman, Baldwin, Martin, & Tsosie, 1981; Guthrie, 1981; Huerta-Macias, 1981; Lum, 1981; Rojas, Masud, Fuentes, Rodriguez, Rodriguez, & Suarez, 1981; Romero & Villegas, 1981; and Villegas & Romero, 1981). These will be discussed later in conjunction with the data on teaching.

Competent student participation is predicated upon the students' ability to perform three major functions: (a) decoding and understanding task expectations, new information, and the teacher's norms and expectations; (b) participating productively; and (c) obtaining feedback concerning their completion of the task.

Decoding and understanding. In order to be perceived by the teacher to be participating competently in classroom instructional activities, a student must be able to understand the task expectations, any new information necessary to complete the task, and the teacher's requirements for appropriate behavior. This understanding should include knowledge of what the end product should be and how to achieve that product (Tikunoff & Vazquez-Faria, 1982).

When the only medium of instruction is English language, it is probable that LEP students will find it difficult to participate competently until they develop sufficient English language skills. Until they develop adequate English skills, progress in academic skills is problematic. Using the students' native language for some instruction

may better ensure that LEP students will be able to decode task expectations, teacher norms, and new information.

Understanding the intent of instruction is reflected in the way in which a student performs assigned tasks. The following depicts the degree to which LEP students were able to do this.

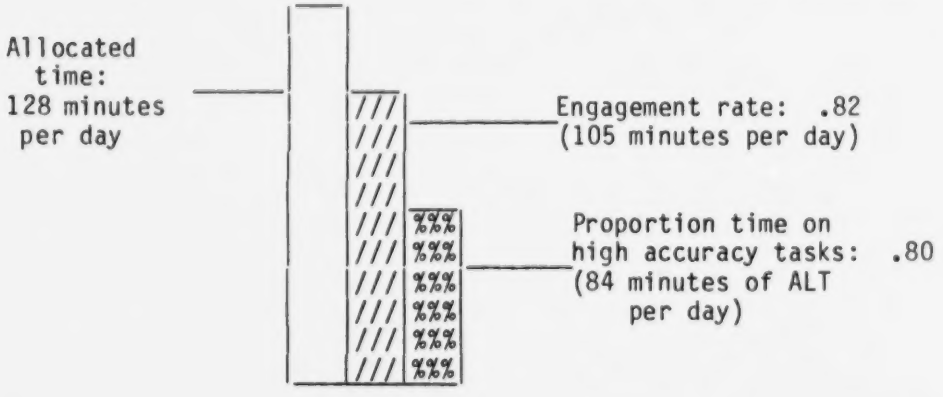
Participating productively. Given that a student has the necessary understanding to successfully complete an instructional task, it is still his or her responsibility to participate productively to accomplish the assignment. Students demonstrate productive participation by: maintaining engagement on assigned tasks, completing tasks with high accuracy, knowing when they are successful in tasks, and observing expected norms.

The study employed two observational measures (ALT and student participation characteristics) to determine the extent of LEP students' productive participation.

Academic Learning Time (ALT). ALT is a measure of student learning-as-it-occurs. It is based on the premise that in order to examine the impact of classroom practices on student learning, it is necessary to obtain a measure of student learning that can be directly related to classroom phenomena. ALT is a measure of student learning that is more proximal to instruction than achievement scores. ALT is a function of the amount of instructional time allocated to the subject area, the amount of time a student is engaged in the task, and the proportion of time students spend on high accuracy tasks. ALT can be observed during instruction, can be measured repeatedly, and correlates positively with student achievement (Fisher et al., 1978; Filby & Cahen, 1978).

Data for ALT were collected through direct observation of target students during basic skills instruction (reading, language arts and mathematics) across three full school days. Average amounts of ALT for the sample of 232 target LEP students are reflected in Figure 2.

Figure 2. ALT in reading/language arts and mathematics for target LEP students in Part I of the SBIF descriptive study.


Allocated time:
128 minutes per day
Engagement rate: .82
(105 minutes per day)
Proportion time on high accuracy tasks: .80
(84 minutes of ALT per day)

The average time allocated to instruction in basic skills across the 58 classrooms in the sample was 128 minutes per day. The average engagement rate for all 232 students was 82 percent, yielding a total of 105 minutes of engaged time-on-task per day. During this engaged time, target LEP students worked on high accuracy tasks for 80 percent of the time, thereby obtaining an average of 84 minutes of ALT per day in reading, language arts, and math. Thus about two thirds of the time allocated to basic skills instruction was experienced as ALT for these target LEP students. This was relatively high compared to the amount of ALT achieved by elementary school students in prior studies (Fisher et al., 1978; Fisher, 1976; Stallings & Kaskowitz, 1974). In the Fisher et al. studies, for example, non-LEP students in grades 2 and 5 in monolingual-English classes experienced somewhat less than half the time allocated to basic skills as ALT.

It should be noted that the classes sampled were grades K through 6, with an oversampling in the early grades. The total amount of time per day allocated to basic skills instruction may seem low unless this is taken into account. In addition, only actual instructional time was recorded as allocated time, so time spent getting ready for lessons or making transitions between lessons was not counted.

Student participation characteristics. Because classroom instructional activity is a social situation requiring frequent interaction with others, students tend to develop patterns of responses to instructional demands during classroom activities. Prior studies have shown that certain styles of participation are related to higher academic achievement (Ward, 1982). Changes in these styles can correlate with negative or positive changes in academic achievement. The SBIF analyses examined whether LEP students participation styles changed over time, and whether these changes were negative or positive. Six major patterns of student participation identified in prior research were used in the SBIF study to describe student responses to instructional demands. They were defined as follows:

The Type I participant is a success-oriented student who can carry out multiple tasks concurrently, likes to work alone, seldom interrupts others, seldom needs help, but knows how to initiate interactions with the teacher and others if help is needed.

The Type II participant is also success oriented but more social, enjoying frequent interaction with others while working, volunteering answers, willingly helping others, and initiating conversations with the teacher to obtain feedback or assistance.

A Type III participant is dependent, needing frequent monitoring and feedback if he is to accomplish instructional tasks successfully.

A Type IV participant almost always attends to instructional tasks, but with little or no active involvement; this student seldom volunteers answers or initiates interactions.

The Type V student is isolated from activity by the teacher, by other students, and frequently by him/herself; this student is only sporadically engaged in instructional tasks.

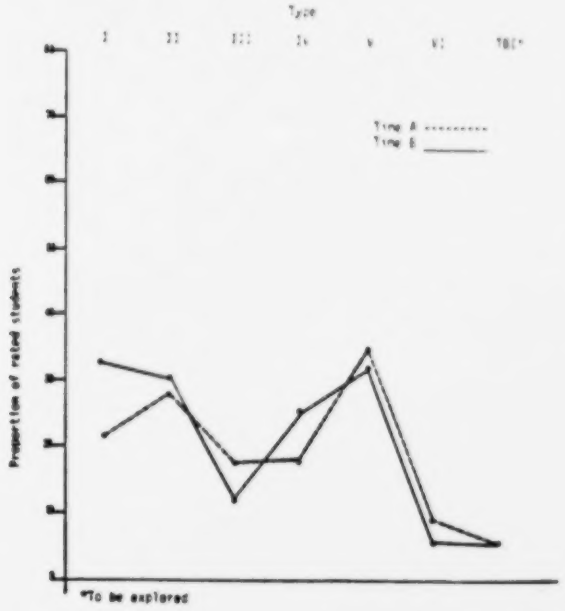
A Type VI student is constantly disrupting or undermining instruction, frequently acting out against situations outside both the context of the classroom and the control of the teacher. Types V and VI are "deviant" participators.

The participation findings for the sampled students were based on two sets of data: rating sheets of student participation completed by teachers on two occasions, and narrative descriptions (protocols) of student behavior prepared by trained classroom observers.

In several classrooms in Part I of the study, the target students students were recent arrivals to the U.S. Most of these were labeled Type V, Type VI, or Type III in January 1981 at the inception of data collection for Part I of the study. By June, when a second assessment was made, the percentage of students exhibiting positive participation styles had increased across all sites, while the percentage of students with negative styles had decreased.

Figure 3 shows the degree of changes in participation across the target student sample. The dotted line represents the number of target students assigned to each of the six categories at Time A, in January 1981. The solid line represents Time B, May and June, 1981. As can be seen, the numbers of Type I (success), Type II (social), and Type IV (phantom) participation style students increased, while the numbers of Type III (dependent), Type V (isolate), and Type VI style (alienate) students decreased. Specifically, at Time A 21 percent of the target students were rated as Type I. At Time B that percentage had risen to 32. A drop of 7 percent was observed in the number of Type III students. The other ratings did not change to a great degree.

Figure 3. Target student participation across time.



Obtaining feedback. Pivotal to competent participation in instructional activity and classroom learning is the student's ability to know whether he or she is successful. Part of the process of obtaining this information depends on the ability of the teacher (or others in instructional authority in the classroom) to communicate with the student. The principal responsibility for obtaining feedback, however, rests with the student.

A student must communicate with others to obtain comparative information regarding whether a task is being accomplished correctly. A student must also know how to get help when needed. It would seem that communication would be more readily accomplished if a LEP student's native language was used appropriately during instruction.

Organization of Instruction

In the bilingual classes studied, there was a strong emphasis on instruction in reading, language arts, and mathematics. Instruction in these basic skills accounted for 74 percent of the school day. On the average, reading and language arts occupied slightly over half of each school day while math accounted for about one fifth. Other subjects took up about 25 percent of the day.

An examination of the instructional organization of the 58 classrooms in the Part I sample revealed that, on the average, students were instructed as a single group for slightly more than 50 percent of the school day. An added 46 percent of the day was spent in grouped instruction, with two or three groups being most common. Grouping was based upon various criteria, with language ability being the most common criterion. For an average of 56 percent of the school day, the most frequent grouping arrangement involved more than two thirds of the students working with the teacher on the same task, while during another 28 percent of the day groups worked on their own tasks. Despite grouping arrangements, students were responsible for accomplishing tasks by themselves for over 90 percent of the average school day. (See Fisher, Tikunoff, Ward, Gee & Phillips, 1981, for a detailed description of organization of instruction in the SBIF study classrooms.)

Linkages in Bilingual Instruction

Prior research on teaching has focused on identifying the link between effective teaching behavior and increased student performance on academic achievement tests of reading and mathematics. Data collection has, for the most part, been confined to observing teaching in the classroom and testing students. As part of the SBIF study, nine ecological case studies investigated both teacher intent and student consequences in addition to the observable instruction.

During data collection for the nine ecological case studies, teachers were interviewed regarding the instructional intent of particular lessons. Four observers recorded quantitative and

qualitative data during the lesson, focusing on the teacher and on four target students in the class. Following the lesson, the teacher was interviewed to learn if his or her expectations were met, or if unforeseen occurrences had caused the instruction to be adjusted. Students were interviewed to determine if they had understood the lesson, if they thought they had accomplished the assigned tasks, how they knew if they had been accurate, and how they obtained feedback regarding their tasks. (For further description of data collection and analysis of the case studies, see Tikunoff, 1983.)

Analyses across the case studies emphasized the links between a teacher's intent, the organization and delivery of instruction, and the student consequences. The sampled teachers clarified instructional intent in several ways. They specified the results or products of a task. They specified what students need to do to obtain those results or products. They specified what they will view as competent student participation behaviors. And they stated beliefs in their own ability to teach and in their students' ability to learn.

For the purposes of the analyses, labels of "A," "B," and "C" were chosen to illustrate possible linkage configurations. The first element of the linkage was the teacher's intent for the lesson, including his or her organization and intended student consequences. This element was represented by A.

The second element of the linkage reflected the observed lesson and could be represented by either A or B. When the teacher's intentions were displayed in the observed delivery of the lesson, the second element was described as A. When the teacher's organization and delivery of instruction varied from his or her stated intent, the second element was described as B.

The third element of the linkage was the aspect of student consequences. The student consequences element could be described as A, B, or C. When the teacher's intent was reflected both in the delivery of the lesson and in the student consequences, the third element was described as A. When the teacher's intent was apparent in the delivery of the lesson but not in the student consequences, the third element was described as B. When the teacher's delivery of the lesson varied from his or her original intent, and the student consequences reflected neither the original intent nor the actual delivery of the lesson, the third element was described as C.

Thus various linkage patterns, such as A-A-A, A-A-B, or A-B-C could be formed. Successful alignment of these three elements (an A-A-A configuration) would describe an effective instructional situation. Nearly 90 percent of the 33 lessons observed for the nine teachers represented successful linkages.

An A-B-B pattern, in which the linkage between the teacher intent and the student consequences was changed by components in the organization and delivery of instruction, would represent an instance in which the lesson was altered during instruction. For example, many teachers

specify as an intended consequence that students will learn to cooperate (A), but the tasks they set up during instruction frequently require independent behavior (B). (Each student may have his or her own copy of the same text and be required to answer the same questions and take a test.) Thus the task would more likely result in competition (B). In fact, under those task demands, students may perceive helping each other as "cheating."

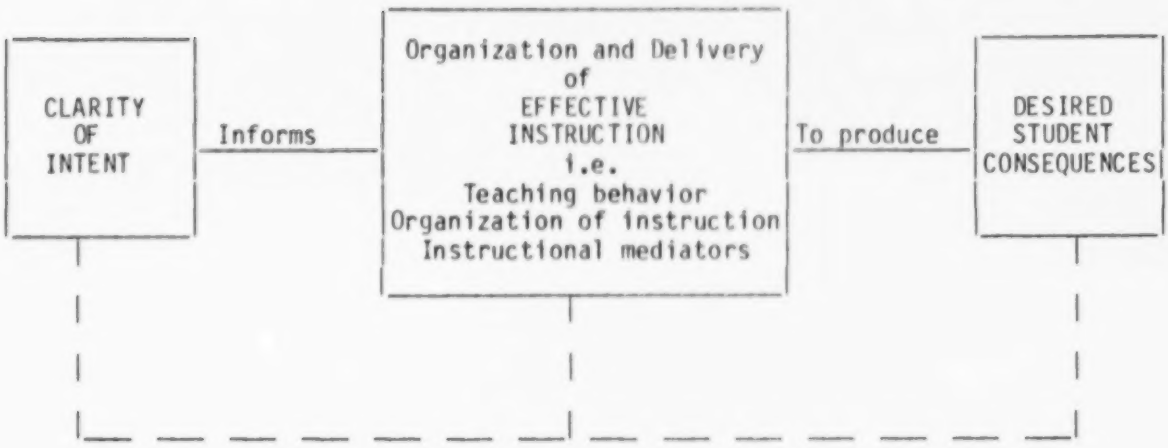
An A-A-B or A-B-C pattern would describe a situation either of purposeful undermining of the instruction by the students, or of chaos resulting from the students' lack of understanding of the teacher's intent. An A-B-A combination could result if an observer entered in the middle of an instructional event; knowledge of this teacher's instruction over time may show that the intent and demands of the lesson were made clear at some point in the past, or that the students have learned to avoid dysfunctional demands by responding to the teacher's intent.

Even when a teacher's intent was not matched by the observed delivery and by student consequences, the case study teachers were able to identify critical moments during the lesson when they were forced to adjust their instruction. Teachers attributed these adjustments to unanticipated or inadequate responses by the students. In all instances, the teachers were able to describe how they would alter future lessons to achieve the desired outcomes. Figure 4 depicts the instructional linkages and illustrates (by the dotted lines) the way in which student performance may result in the adjustment of instruction. Figure 4 also summarizes the three major components of Figure 1, the framework for bilingual instruction.

The requirements of successful instruction for LEP students and their teachers depicted in Figure 4 are both interactive and recursive. They are interactive in that teachers can promote competent student participation in instruction, but students must share some responsibility for their own performances; both teachers and students must adjust behaviors to achieve common goals. The requirements are recursive in that a teacher's intent must be communicated and understood, engagement must be obtained and maintained, and the monitoring and feedback loop activated so that students successfully complete their tasks.

The importance of the instructional linkage paradigm of teacher intent, organization and delivery of instruction, and student consequences cannot be overestimated. Instructional researchers have often overlooked the relationships between these instructional links, and have relied only on their own interpretations of observed behavior in the organization and delivery of instruction. The findings of the ecological case studies indicated that teacher intent and student consequences are as important in the instructional linkage paradigm as the organization and delivery of instruction.

Figure 4. Linkages in bilingual instruction.


CLARITY OF INTENT
Informs
Organization and Delivery of EFFECTIVE INSTRUCTION i.e. Teaching behavior Organization of instruction Instructional mediators
To produce
DESIRED STUDENT CONSEQUENCES

Use of Active Teaching Behaviors

Recent studies of reading and mathematics instruction at the elementary school level have produced an understanding of teaching behaviors necessary to produce increased student performance on tests of achievement in reading and math (Stallings & Kaskowitz, 1974; Tikunoff, Berliner, & Rist, 1975; Anderson, Evertson, & Brophy, 1979). Follow-up studies that compared more and less effective teachers in terms both of these teaching behaviors and of the resulting performance by students confirmed that effective instruction could be identified by certain behavioral dimensions. Good (1979) reviewed these findings and concluded that, at least for the teaching of reading and mathematics, teaching behaviors associated with effective instruction could be identified. In related work, Good and Grouws (1975, 1979) developed a set of observational constructs for identifying the presence of effective teaching. These they referred to as "active teaching" behaviors. (There is considerable literature relevant to effective instruction at the elementary school level. For comprehensive reviews see Good, 1979; Brophy, 1979; and Rosenshine, 1979.)

Effective teachers exhibit active teaching in four major categories of behavior. These are: communication, engagement, monitoring, and feedback.

At the core of effective instruction for all children is a teacher's ability to communicate clearly--giving accurate directions, specifying tasks, enabling students to know when they have completed tasks successfully, presenting new information understandably. To accomplish the latter, for example, effective teachers most frequently use techniques such as explaining, outlining, summarizing, and reviewing.

A teacher's ability to engage students in their instructional task is also crucial. Paramount to obtaining and maintaining productive engagement of a whole class is the teacher's skill in focusing on the task, preventing or resolving disturbances, keeping students' attention from wandering, and appropriately pacing instruction. By promoting students' involvement in instructional tasks, a teacher actively works toward increasing the students' amount of academic learning time.

Monitoring of students' work while in progress and providing appropriate, current feedback are further important elements in effective teaching. Teachers are best able to monitor the appropriateness of students' responses to an instructional task while the task in underway. Students who are responding incorrectly to a task need immediate feedback concerning those responses. They otherwise run the risk of using ineffective strategies, exhibiting inappropriate behaviors, or repeating errors. This process further allows the teacher the opportunity to alter the task if necessary, or to encourage students regarding their ability to complete the task.

If active teaching behaviors were found to correlate highly with increased student performance in reading and math, then effective instruction of these subjects should be identifiable by using the constructs of active teaching behaviors. Two data bases in Part I of the SBIF descriptive study indicate that the sampled teachers rated high on active teaching behaviors.

First, observers were asked to independently rate the teachers on teaching behaviors. This was accomplished after all data were collected. The observers used a 16-item rating instrument that included 13 items related to active teaching derived from Good and Grouws (1979). Ratings were based on a 5-point scale ranging from "seldom used" to "almost always used," and were confirmed by a separate analysis of narrative descriptions of instruction (or protocols). The teachers in the sample rated 4 points or more on 12 of the 13 active teaching items, and 3.3 on the remaining active teaching item. These ratings indicate that the sampled teachers frequently and consistently used active teaching behaviors as part of their teaching repertoire (Tikunoff, 1983).

A second data set that supports these findings was the teacher analyses of narrative descriptions of their own instruction. Following data collection, teachers at the six sites were invited to read protocols of their own instruction and, anonymously, those of other teachers at their site. They identified what they perceived to be significant instructional features and coded the protocols for those features. Each site was treated independently, allowing site-specific features to emerge if they existed. A separate analysis was performed by the study's research staff using a constant comparative analysis procedure modeled after that of Glaser and Strauss (1967). This procedure attempts to develop construct definitions by coding categories and then comparing them across similar sets of data for consistency, inconsistency, and the potential emergence of additional categories. Constant comparisons across the entire set of instructional

protocols for the 58 classrooms confirmed the frequent and consistent use of active teaching behaviors (Tikunoff, 1983).

Use of L1 and L2 for Instruction

Teachers in the study used both L1, the students' native language, and L2, English, for a portion of the instruction. English was used for instruction approximately 60 percent of the observed time, and L1 or a combination of the two languages approximately 35 percent of the time. Teachers alternated between languages relatively frequently at some sites and less frequently at others. When teachers alternated between languages, the content of the first statement in either language was categorized as "instructional development" almost half of the observed time, as "procedures or directions" about one third of the time, and "behavioral feedback to students" one fifth of the time. The first statement in a language was directed to an individual student 50 percent of the time and to the whole class or a subgroup about 50 percent of the time.

It should be noted that only averages are given for the amount of language used, and that there was variance across sites. The range was between 48 percent English use at Site 03 and 74 percent at Site 06. For L1 the range was between 36 percent at Site 03 and 17 percent at Site 06.

As indicated, English was used predominantly. When the sampled teachers perceived that a student was not comprehending what was required, or needed feedback to complete a task, teachers frequently switched to the LEP students' native language. Thus the sampled teachers used L1 was to clarify instruction. This finding was particularly interesting in that many school districts tell their teachers to avoid switching languages during instruction because they feel such switching confuses students.

A strong indicator of effective communication by teachers, whether in L1 or L2, would be whether or not the communication promoted competent participation by students. The ability of the 58 teachers in the sample to communicate effectively was demonstrated by the degree of successful participation of the target LEP students in instructional activity. The high average ALT achieved by the target students, as well as their increasingly competent participation, indicated that the teachers in the study were communicating clearly.

Integration of English Language Development with Basic Skills Instruction

Teachers in the SBIF study focused on developing LEPs' use of English even outside the time regularly reserved for language instruction. This emphasis on language development during instruction in other academic skills appeared to further reinforce language

acquisition. For example, teachers often refused single-word responses, redirecting students by saying, "Good. Can you give me a whole sentence?" or, "Can you use that word in a whole sentence?" When students responded in the language not being used for instruction, the teacher would remind them, "That's right. Now repeat that in English."

We have termed this process "an integrative approach" to language development. That is, LEP students were simultaneously instructed in English language use and other basic academic skills. Moreover, the sampled teachers communicated in L1 at least part of the time. A feature of bilingual instruction identified in Part I of this study, therefore, was the frequent stress on language development during skills instruction. Being instructed in a language during other classroom activities is very different from acquiring a language through either immersion or "pull-out" approaches. In the integrated approach described here, English language development occurred with instructional tasks and learning new concepts. English language picked up by students during immersion or isolated pull-out processes, on the other hand, may be external to the instructional task at hand.

The sampled teachers used the students' native language to clarify instructions and new information. The use of L1 appeared to facilitate communication between the teacher and students. By integrating language development into other instruction, the teachers appeared to reinforce acquisition of both L1 and L2 without inhibiting the learning of other academic skills. And by making use of elements of the LEP students' native culture during instruction, the teachers seemed to be removing potential structural barriers to learning. Because the students in this sample were limited in the comprehension and use of English, their ability to function successfully in a monolingual-English classroom would have been impaired. The mediational strategies employed by their teachers probably enabled the LEP students to improve their English language proficiency and also to participate in other academic skills instruction.

Use of Information from the LEP Students' Home Culture

The sampled teachers used their LEP students' native culture to promote the students' engagement in tasks. This type of mediation took both verbal and nonverbal forms and fell into three categories: (a) response to cultural referents to enhance instruction; (b) organization of instruction based on structures from the L1 culture; and (c) observing values and norms of L1 and L2 cultures.

Response to cultural referents to enhance instruction. During instruction, the sampled teachers used verbal and nonverbal behavior to mediate instruction. This could best be described as making use of information from the native culture to communicate task and institutional demands. Such information is referred to here as cultural

referents or cues, and the sampled teachers both initiated such behavior and responded to it when it was initiated by students. The following is an example taken from the SBIF study data:

> Following a severe reprimand (the teacher later described her behavior as "grasping the boy's arm"), the teacher said gently, "Now, mijito, you know better than that." When asked to explain the possible meaning of this action on her part, the teacher stated that this term of endearment "took the sting out of the sanction," thereby saving face for the boy in front of his peers.

This interaction took place in a classroom in which the LEP students' native language was Spanish. The term "mijito" is derived from "hijo" (son), with the prefix "mi-" (my) and diminutive "-ito" added. "Mijito" translates roughly to "my little son." Among Hispanics the term conveys fondness and belonging. Female teachers at the Hispanic sites frequently assumed a motherly authority role in the classroom, speaking to their students as they would to their own children. Students responded positively to this.

A study teacher at another Hispanic site described a reprimand situation at her school. A teaching colleague not as familiar with the students' culture was very upset with a student who failed to look at her or otherwise respond when he was scolded. The study teacher explained that the student had stood silently with his head lowered because he had been taught that that was the respectful behavior when being reprimanded by an elder.

Organization of instruction based on structures from the L1 culture. Researchers have found that when the rules of discourse in the school environment were similar to those in the home environment, students were more likely to learn (Philips, 1972; Mehan, 1980). Since most U.S. school settings are linguistically monolingual English, the rules of the classroom, communicated through the organizational structures, would most often reflect those of the majority culture. LEP students in those classrooms would be confronted by instructional demands that may convey values and norms that conflict with the LEPs' home culture. Since students must be able to respond successfully to task and structural demands in order to participate competently in instruction, LEP students may be inhibited in their participation until the classroom rules of discourse are understood and mastered.

Teachers in Part I of the SBIF study mediated classroom rules of discourse for students by integrating rules from the L1 culture into the organization of instruction in order to maximize student participation. In the Navajo classrooms, for example, teachers recognized a cultural rule by not assigning boys and girls from the same tribal clan to the same reading groups. In addition, since direct and repeated questioning is considered rude in Navajo culture, and because Navajos are reluctant to call individual attention to themselves, these teachers

would conduct class activities in small groups with a lot of choral drilling.

In other instances, teachers with students from Hispanic cultures frequently established activity structures that encouraged cooperation among the students, allowing them to talk with one another and help each other with instructional tasks. This type of structure seemed to recognize a spirit of family cooperation in the Hispanic culture, where older children are assigned the care of their younger siblings.

Observing values and norms of L1 and L2 cultures. Teachers in this study felt that LEP students needed to understand and be able to observe the values and norms required to participate competently in monolingual-English instructional settings. At the same time, they did not want to devalue the LEP students' home culture. This concern was reflected in the following event from a classroom in which L1 was Chinese.

> In preparing her class for a public performance before their parents, a teacher told her class that they must make a positive presentation of their behavior. "If parents see you laugh on stage, you will lose face," she admonished. "That's disastrous!" When students continued to act up, she added, "If you're laughed at, [then] I'll lose face!"

A teacher from the Navajo site described her own reaction to students' participation in "sings," Navajo healing ceremonies:

> A lot of times they come to school after they have had a Navajo medicine man sing over them. They tell you these things. Like last year I had one kid, she didn't want to wash her face because she had a sing and wasn't supposed to wash her face for four days. It was kind of black, and I already knew it had to do with a sing. I didn't ask questions or force her to wash, like someone would if they didn't understand it. Then the parents would be upset.

Summary

Based on the characteristics of competent participation described in this report, in addition to demonstrations of high ALT scores and improved participation styles, the target students of the SBIF study appeared to be participating competently in instruction. The skill of the study teachers was indicated by their consistently high ratings on active teaching behaviors.

The description of instruction as observed in the classrooms of the SBIF study presented a paradigm of instruction in which a teacher's intent, the organization and delivery of instruction, and student consequences were closely linked. Bilingual instruction in the sample

classes differed, however, from effective instruction in general, in that, the bilingual teachers mediated instruction for the LEP students.

Mediation was achieved in three ways: (a) by the use of both L1 (the LEP students' native language) and L2 (English) for instruction; (b) by the integration of English language development with basic skills instruction; and (c) by using information from the LEP students' home culture.

The findings suggest that if LEP students are expected to acquire English language proficiency and at the same time to progress in academic skills, then this can be accomplished by teachers who provide effective instruction in each subject area using both English and the students' native language and culture.

Implications for Future Research

Although the findings reported here are intended to describe significant features of bilingual instruction, some aspects of the SBIF study may be applicable to the practice and research of elementary school instruction in general. For example:

- The competent student participation model formulated for this study appears to provide a strong indicator of a LEP student's functional proficiency. Verification and refinement of this model may produce a measure of student competency useful in other instructional settings as well.

- The mediational strategies displayed by the sampled bilingual teachers raise the question of whether successful teachers in general use varying mediational strategies in response to the needs of their students. This may be an example of what teachers refer to as "differentiated," "individualized," or "student-centered" instruction, and may be useful in examining effective instruction for other "children at risk" such as handicapped, poor, or minority students.

- The instructional linkage paradigm explored through the SBIF ecological case studies expanded the perspective of prior research on instruction and may encourage further investigation of the importance of teacher intent and student outcomes in the instructional process.

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